National Institute for Health and Care Excellence

Self-harm: assessment, management and preventing recurrence

[L] Evidence review for harm minimisation strategies

NICE guideline number NG225

Evidence review underpinning recommendations 1.11.11 to 1.11.13 and research recommendation 5 in the NICE guideline

September 2022

Disclaimer

The recommendations in this guideline represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, professionals are expected to take this guideline fully into account, alongside the individual needs, preferences and values of their patients or service users. The recommendations in this guideline are not mandatory and the guideline does not override the responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or their carer or guardian.

Local commissioners and/or providers have a responsibility to enable the guideline to be applied when individual health professionals and their patients or service users wish to use it. They should do so in the context of local and national priorities for funding and developing services, and in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities. Nothing in this guideline should be interpreted in a way that would be inconsistent with compliance with those duties.

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Harm minimisation strategies

Review question

What is the effectiveness of harm minimisation strategies for people who have self-harmed?

Introduction

Harm minimisation strategies can be used to prevent or minimise the severity of physical harm caused to a person during and after an episode of self-harm, which can reduce the incidence of more serious injuries and fatal self-harm. Harm minimisation is also sometimes used to refer to strategies that are seen as alternatives to self-harm, such as substituting for other behaviours, coping strategies, or distraction techniques. People who repeatedly self-harm without suicidal intent may find these strategies useful to reduce rates of repeat self-harm. However, in existing practice, self-harm prevention is usually seen as the highest priority when providing care for people who have self-harmed, whereas providing information about harm minimisation strategies to people who have self-harmed might not promote this overall goal if they can be seen as an acceptance that repeat self-harm is inevitable. Additionally, people self-harm for different reasons and using different methods, for which some harm minimisation strategies might not be possible or appropriate. As a result, it is important to evaluate the effectiveness of harm minimisation strategies for people who have self-harmed in order to assess whether the benefits of implementing harm minimisation strategies outweigh the potential risks.

Summary of the protocol

See Table 1 for a summary of the Population, Intervention, Comparison and Outcome (PICO) characteristics of this review.

Table 1: Summary of the protocol (PICO table)

Population	Inclusion: All people who have self-harmed, including those with a mental health problem, neurodevelopmental disorder or a learning disability **Exclusion:** People displaying repetitive stereotypical self-injurious behaviour, for example head-banging in people with a significant learning disability
Intervention	Any harm minimisation strategy, including, for example: • Strategies based on distraction (such as elastic band snapping) • Safer self-harming techniques (such as clean razor blades, showing where to cut)
Comparison	No harm minimisation strategy
Outcome	**Critical** • Frequency of self-harm • Distress • Suicide **Important** • Severity of self-harm

- Quality of life
- Self-efficacy/autonomy (person feeling like they are in control)
- Hopelessness

For further details see the review protocol in appendix A.

Methods and process

A modified version of the GRADE approach to rate the certainty of evidence in systematic reviews was used as part of a pilot project undertaken by NICE. Instead of using predefined clinical decision/minimal important difference (MID) thresholds to assess imprecision in GRADE tables, imprecision was assessed qualitatively during committee discussions. Other than this modification, GRADE was used to assess the quality of evidence for the selected outcomes and this evidence review developed using the methods and process described in Developing NICE guidelines: the manual. Methods specific to this review question are described in the review protocol in appendix A and the methods document (supplementary document 1).

Declarations of interest were recorded according to NICE's conflicts of interest policy.

Effectiveness evidence

Included studies

A systematic review of the literature was conducted but no studies were identified which were applicable to this review question.

See the literature search strategy in appendix B and study selection flow chart in appendix C.

Excluded studies

Studies not included in this review are listed, and reasons for their exclusion are provided, in appendix J.

Summary of included studies

No studies were identified which were applicable to this review question (and so there are no evidence tables Appendix D).

Summary of the evidence

No studies were identified which were applicable to this review question (and so there are no GRADE tables in Appendix F).

Economic evidence

Included studies

A single economic search was undertaken for all topics included in the scope of this guideline but no economic studies were identified which were applicable to this review question. See the literature search strategy in appendix B and economic study selection flow chart in appendix G.

Excluded studies

Economic studies not included in the guideline economic literature review are listed, and reasons for their exclusion are provided in appendix J.

Economic model

No economic modelling was undertaken for this review because the committee agreed that other topics were higher priorities for economic evaluation.

Evidence statements

Economic

No economic studies were identified which were applicable to this review question.

The committee's discussion and interpretation of the evidence

The outcomes that matter most

Frequency of self-harm, distress and suicide were prioritised as critical outcomes by the committee. The committee agreed that self-harming behaviours serve as coping mechanisms for many people who self-harm. Frequency of self-harm and distress were prioritised as critical outcomes because they are direct measures of any differential effectiveness associated with the interventions that can capture even minor changes in self-harming behaviour, which is one of the primary aims of harm minimisation interventions. Suicide was prioritised as a critical outcome because it is a direct measure of any differential effectiveness associated with the interventions that captures fatal self-harm associated with the attempted modification of the self-harming behaviour.

The committee agreed that severity of self-harm, quality of life, self-efficacy/ autonomy and hopelessness were important outcomes. Severity of self-harm, self-efficacy/ autonomy and hopelessness were chosen as important outcomes because these outcomes capture both whether harm-minimisation is successful in reducing the severity of self-harm as well as whether such a potential reduction comes at a cost in terms of feelings of self-efficacy/ autonomy and hopelessness. The committee agreed that self-efficacy/ autonomy would capture participants' feelings of ownership of decisions relating to their care, collaboration of care, plus any coercion by caregivers, for example to prevent self-harm. Quality of life was chosen as an important outcome as this is a global measure of well-being and may capture aspects of effectiveness of the interventions not captured by any of the other outcome measures.

The quality of the evidence

No studies were identified that met the inclusion criteria so the committee based the recommendations on their own knowledge and experience. The committee made a research recommendation on the experience, feasibility, acceptability, and effectiveness of harm minimisation strategies because there was no available evidence on harm minimisation. The committee agreed that different kinds of evidence would be useful, including feasibility and acceptability evidence, because there is no current agreed definition of harm minimisation or well-known understanding of how to implement this complex intervention.

Benefits and harms

Due to the lack of evidence available from this review that demonstrated the benefits or risks of harm minimisation strategies and the sensitive nature of this topic, the committee agreed not to make recommendations about the use of 'safer' self-harm. The committee acknowledged 'safer' self-harm strategies were most commonly associated with harm minimisation, but agreed there were a number of other approaches to harm-minimisation which had fewer risks associated with them. The committee wanted to acknowledge the utility of harm minimisation strategies, but discussed the risks of 'safer' self-harm approaches, such as implying the promotion, endorsement, or encouragement of self-harm. The committee agreed these methods could be useful for some people who frequently self-harmed, but without strong evidence for the benefits and harms of 'safer' self-harm, the committee did not feel comfortable making recommendations about them. Therefore, the use of 'safer' self-harm specifically is neither recommended nor recommended against in the guideline.

The committee wanted to acknowledge the importance of providing strategies to prevent future self-harm as an initial step before suggesting harm minimisation only when people are unable to resist the urge to self-harm. The committee discussed the potential risks of harm minimisation strategies, based on their own knowledge and experience. They noted that the provision of such advice without additional support or treatment could have the effect of implying therapeutic nihilism, as well as encouraging further episodes of self-harm, especially in people who do not have a prior history of self-harm. However, the committee also considered their experience of the positive impact of harm minimisation strategies for people who frequently self-harmed and noted that harm minimisation strategies could reduce the number of instances of infection or serious injury caused by self-harm, or fatal self-harm. The committee considered these benefits and risks before concluding that harm minimisation strategies should only be suggested to people after having considered their unique situation, with continued optimism and as part of an overall provision of support maintaining the expectation of recovery and not as a standalone intervention. The committee could not provide more specific recommendations about the time limits of harm minimisation due to the lack of evidence, however the committee agreed that the emphasis on collaborative care would ensure any approach to harm minimisation would be considered on a case-by-case basis. The committee agreed taking this approach would lower the risks associated with providing information on harm minimisation strategies.

The committee felt strongly that it was important to note harm minimisation was more than just 'safer' self-harm methods, and that it is overall a person-centred approach about the individual better understanding and managing their urges to self-harm.. They agreed based on their experience that it can be helpful to provide advice on techniques that help to avoid, delay, or reduce self-harm, and no risks were identified from the use of these approaches. For example, the committee agreed that distraction techniques, coping strategies, and self-care could help avoid or delay self-harm, while providing information about the potential complications of self-harm and the interaction between drugs or alcohol and self-harm would give people knowledge that might reduce their urge to self-harm. Additionally, information about wound hygiene and aftercare could empower the person to care for themselves following self-harm, reducing distress and the potential for complications such as infection or bleeding. The committee agreed this approach carried the risk of discouraging people from help-seeking, and therefore information on aftercare should include help-seeking, to encourage people to present to services for care and support following self-harm. The committee also discussed whether the use of 'alternatives' to self-harm should be recommended, such as using ice-cubes or drawing lines instead of self-cutting. The committee agreed, based on their experience, not to include these approaches in the recommendation because people who self-harm do not tend to find them useful: they can be reminders of self-harm or even seen as self-harm in themselves. The committee agreed they

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would need strong evidence about the benefits and harms of these approaches in order to make recommendations about them.

The committee agreed that it was important to acknowledge the fact that harm minimisation strategies might not be appropriate to suggest to all people who have self-harmed. For example, wound hygiene and aftercare information might not be applicable for someone who regularly self-poisoned. The committee agreed the potential risks of attempting to implement certain harm-minimisation strategies for everyone regardless of their personal situation could include increased frequency of self-harm or distress for some people, and agreed that awareness should be brought to the inapplicability of harm-minimisation strategies for many people who self-harm. The committee discussed whether an age limit should be introduced for harm minimisation strategies but agreed there could be circumstances where the strategies would be useful for children and young people, and that the applicability of harm minimisation was based on the individual's circumstances and not their age.

Cost effectiveness and resource use

The committee noted that no relevant published economic evaluations had been identified and no additional economic analysis had been undertaken in this area. They recommended specific strategies to reduce the likely variation across the NHS in the current practice in terms of harm minimisation strategies. The committee agreed that there was unlikely to be a significant resource impact from the recommendations made, as these are in line with self-management and/or harm minimisation strategies that are currently used in the management of people with self-harm. Moreover, they highlighted how the provision of the recommended strategies is expected to have benefits for the person in terms of a reduction in the severity and/or recurrence of injury and associated resource use savings.

Recommendations supported by this evidence review

This evidence review supports recommendations 1.11.11-1.11.13 and research recommendation 5 on the experience, feasibility, acceptability and effectiveness of harm minimisation strategies for people who self-harm.

References – included studies

Effectiveness

No studies were identified that met the inclusion criteria.

Economic

No studies were identified that met the inclusion criteria.

Appendices

Appendix A Review protocols

Review protocol for review question: What is the effectiveness of harm minimisation strategies for people who have self-harmed?

Table 2:   Review protocol

Field	Content
PROSPERO registration number	CRD42020203761
Review title	Harm minimisation strategies
Review question	What is the effectiveness of harm minimisation strategies for people who have self-harmed?
Objective	To identify the effectiveness of harm minimisation strategies for people who have self-harmed.
Searches	The following databases will be searched: • Cochrane Central Register of Controlled Trials (CENTRAL) • Cochrane Database of Systematic Reviews (CDSR) • Database of Abstracts of Reviews of Effects (DARE) • Embase • Emcare • International Health Technology Assessment (IHTA) database • MEDLINE & MEDLINE In-Process • PsycINFO Searches will be restricted by: • English language studies • Human studies • Date: 2000 onwards as harm minimisation strategies were not used in practice before then. Other searches: • Inclusion lists of systematic reviews

Field	Content
	The full search strategies will be published in the final review.
Condition or domain being studied	All people who have self-harmed, including those with a mental health problem, neurodevelopmental disorder or a learning disability. 'Self-harm' is defined as intentional self-poisoning or injury irrespective of the apparent purpose of the act. This does not include repetitive stereotypical self-injurious behaviour, for example head-banging in people with a significant learning disability.
Population	Inclusion: • All people who have self-harmed, including those with a mental health problem, neurodevelopmental disorder or a learning disability Exclusion: • People displaying repetitive stereotypical self-injurious behaviour, for example head-banging in people with a significant learning disability
Intervention	Inclusion: Any harm minimisation strategy, including, for example: • Strategies based on distraction (such as elastic band snapping) • Safer self-harming techniques (such as clean razor blades, showing where to cut)
Comparator/Reference standard/Confounding factors	No harm minimisation strategy
Types of study to be included	• Systematic review of randomised controlled trials (RCTs) or non-randomised comparative prospective and retrospective cohort studies • RCTs • Non-randomised comparative prospective cohort studies with N≥50 per treatment arm • Non-randomised comparative retrospective cohort studies with N≥50 per treatment arm Conference abstracts will not be included. Non-randomised studies should adjust for the following covariates in their analysis when there are differences between groups at baseline: age, gender, previous self-harm, comorbidities (e.g. alcohol and drug misuse, psychiatric illness, physical illness), and current psychiatric treatment. Studies will be downgraded for risk of bias if important covariates are not adequately adjusted for, but will not be excluded for this reason.
Other exclusion criteria	Studies will not be included for the following reasons: • Language: Non-English • Publication status: Abstract only Studies published in languages other than English will not be considered due to time and resource constraints with translation.
Context	Settings:

Field	Content
	Inclusion: • Primary, secondary and tertiary healthcare settings (including pre-hospital care, accident and emergency departments, community pharmacies, inpatient care, and transitions between departments and services) • Home, residential and community settings, such as supported accommodation • Supported care settings • Education and childcare settings • Criminal justice system • Immigration removal centres.
Primary outcomes (critical outcomes)	Critical: • Frequency of self-harm • Distress • Suicide
Secondary outcomes (important outcomes)	Important: • Severity of self-harm • Quality of life • Self-efficacy/autonomy (person feeling like they are in control) • Hopelessness
Data extraction (selection and coding)	All references identified by the searches and from other sources will be uploaded into EPPI and de-duplicated. Titles and abstracts of the retrieved citations will be screened to identify studies that potentially meet the inclusion criteria outlined in the review protocol. Dual sifting will be performed on 10% of records; 90% agreement is required. Disagreements will be resolved via discussion between the two reviewers, and consultation with senior staff if necessary. Full versions of the selected studies will be obtained for assessment. Studies that fail to meet the inclusion criteria once the full version has been checked will be excluded at this stage. Each study excluded after checking the full version will be listed, along with the reason for its exclusion. A standardised form will be used to extract data from studies. The following data will be extracted: study details (reference, country where study was carried out, type and dates), participant characteristics, inclusion and exclusion criteria, details of the interventions, setting and follow-up, relevant outcome data, risk of bias and source of funding. One reviewer will extract relevant data into a standardised form, and this will be quality assessed by a senior reviewer.
Risk of bias (quality) assessment	Quality assessment of individual studies will be performed using the following checklists: • ROBIS tool for systematic reviews • Cochrane RoB tool v.2 for RCTs and quasi-RCTs • Cochrane ROBINS-I tool for non-randomised (clinical) controlled trials and cohort studies The quality assessment will be performed by one reviewer and this will be quality assessed by a senior reviewer.

Field	Content
Strategy for data synthesis	Quantitative findings will be formally summarised in the review. Where multiple studies report on the same outcome for the same comparison, meta-analyses will be conducted using Cochrane Review Manager software. A fixed effect meta-analysis will be conducted and data will be presented as risk ratios if possible or odds ratios when required (for example if only available in this form in included studies) for dichotomous outcomes, and mean differences or standardised mean differences for continuous outcomes. Heterogeneity in the effect estimates of the individual studies will be assessed using the I2 statistic. I2 values of greater than 50% and 80% will be considered as significant and very significant heterogeneity, respectively. Heterogeneity will be explored as appropriate using sensitivity analyses and subgroup analyses based on identified covariates if they have not been adjusted for. If heterogeneity cannot be explained through subgroup analysis then a random effects model will be used for meta-analysis, or the data will not be pooled if the random effects model does not adequately address heterogeneity. The confidence in the findings across all available evidence will be evaluated for each outcome using an adaptation of the 'Grading of Recommendations Assessment, Development and Evaluation (GRADE) toolbox' developed by the international GRADE working group: http://www.gradeworkinggroup.org/
Analysis of sub-groups	Evidence will be stratified by: • Type of harm minimisation strategy: distraction, safer self-harm
Type and method of review	Intervention
Language	English
Country	England
Anticipated or actual start date	05/08/2020
Anticipated completion date	26/01/2022

Stage of review at time of this submission	Review stage	Started	Completed
	Preliminary searches	☐	☑
	Piloting of the study selection process	☐	☑
	Formal screening of search results against eligibility criteria	☐	☑
	Data extraction	☐	☑
	Risk of bias (quality) assessment	☐	☑

Field	Content		
	Data analysis	☐	☑
Named contact	5a. Named contact: National Guideline Alliance 5b Named contact e-mail: selfharm@nice.org.uk 5e Organisational affiliation of the review: National Institute for Health and Care Excellence (NICE) and National Guideline Alliance		
Review team members	National Guideline Alliance		
Funding sources/sponsor	This systematic review is being completed by the National Guideline Alliance which receives funding from NICE.		
Conflicts of interest	All guideline committee members and anyone who has direct input into NICE guidelines (including the evidence review team and expert witnesses) must declare any potential conflicts of interest in line with NICE's code of practice for declaring and dealing with conflicts of interest. Any relevant interests, or changes to interests, will also be declared publicly at the start of each guideline committee meeting. Before each meeting, any potential conflicts of interest will be considered by the guideline committee Chair and a senior member of the development team. Any decisions to exclude a person from all or part of a meeting will be documented. Any changes to a member's declaration of interests will be recorded in the minutes of the meeting. Declarations of interests will be published with the final guideline.		
Collaborators	Development of this systematic review will be overseen by an advisory committee who will use the review to inform the development of evidence-based recommendations in line with section 3 of Developing NICE guidelines: the manual. Members of the guideline committee are available on the NICE website: https://www.nice.org.uk/guidance/indevelopment/gid-ng10148.		
Other registration details	None		
URL for published protocol	https://www.crd.york.ac.uk/prospero/display_record.php?RecordID=203761		
Dissemination plans	NICE may use a range of different methods to raise awareness of the guideline. These include standard approaches such as: notifying registered stakeholders of publication publicising the guideline through NICE's newsletter and alerts issuing a press release or briefing as appropriate, posting news articles on the NICE website, using social media channels, and publicising the guideline within NICE.		
Keywords	Self-harm, assessment, management, prevention, first contact, health care		
Details of existing review of	None		

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Field	Content
same topic by same authors	
Current review status	Ongoing
Additional information	Not applicable
Details of final publication	www.nice.org.uk

CDSR: Cochrane Database of Systematic Reviews; CENTRAL: Cochrane Central Register of Controlled Trials; GRADE: Grading of Recommendations Assessment, Development and Evaluation; NGA: National Guideline Alliance; NICE: National Institute for Health and Care Excellence; RCT(s): randomised controlled trial(s); RevMan: review manager; RoB: risk of bias; ROBINS-I: Risk Of Bias In Non-randomized Studies - of Interventions

Appendix B Literature search strategies

Literature search strategies for review question: What is the effectiveness of harm minimisation strategies for people who have self-harmed?

<u>**Clinical**</u>

Database(s): MEDLINE(R) and Epub Ahead of Print, In-Process & Other Non-Indexed Citations and Daily – OVID interface
Date of last search: 10th August 2020

#	searches
1	exp self-injurious behavior/ or self mutilation/ or suicide/ or suicidal ideation/ or suicide, attempted/ or suicide, completed/
2	(automutilat* or auto mutilat* or cutt* or (self adj2 cut*) or selfdestruct* or self destruct* or selfharm* or self harm* or selfimmolat* or self immolat* or selfinflict* or self inflict* or selfinjur* or self injur* or selfmutilat* or self mutilat* or selfpoison* or self poison* or selfwound* or self wound* or suicid*).ti,ab.
3	or/1-2
4	risk management/ or risk reduction behavior/
5	((((controlled or safe*) adj self harm) or (((nurs* adj2 present) or supervis*) adj2 (selfharm* or self harm)) or (harm adj (minimi* or reduc*))).ti,ab. or (harm* adj2 (minimi* or reduc*)).ti. or (((approach* or communicat* or counsel* or educat* or instruct* or interven* or learn* or manag* or module* or network* or program* or psychoanaly* or psychotherap* or rehab* or skill* or strateg* or support* or taught or teach* or technique* or therap* or tool* or train* or treat* or workshop* or work shop*) adj4 ((cut* or decreas* or diminish* or fall* or fell or less* or limit* or low or lower* or minimi* or reduc*) adj2 risk)).ti,ab. and 2) or ((((method* or strateg* or technique*) adj3 alternative* adj3 self harm) or selfharm or (less adj2 (destructive or harmful) adj3 (method* or strateg* or technique) adj3 (self harm or selfharm))).ti,ab. and 2)
6	(((access* or provid*) adj3 (first aid or (medical adj (attention* or care)))) or ((clean* or sterile) adj2 (bandag* or blade* or cutt* or equipment or instrument* or razor* or wound*)) or dialectical behavio?r therap* or ((educat* or information* or instruct* or learn* or pamphlet*) adj3 (cut* or sever*) adj3 (arter* or nerve* or tendon*)) or ((advice or advis* or educat* or information* or learn* or pamphlet*) adj5 (infection* or safety or scar* or woundcare or wound care)) or damage limitation).ti,ab.
7	((comfort* adj3 (intervention* or manag* or strateg* or technique* or tool*)) or self comfort*).ti,ab.
8	((cuddle adj2 tedd*) or (strok* adj2 pet*)).ti,ab.
9	emergency box.ti,ab.
10	((have or take) adj2 (bath* or shower*)).ti,ab.
11	(hug* adj2 (person* or someone or themselv* or yourself)).ti,ab.
12	(massag* adj3 (arm* or hand* or leg* or feet)).ti,ab.
13	((paint* adj2 nail*) or hairdresser* or (hair adj2 done)).ti,ab.
14	(chew* adj2 (ginger or ice)).ti,ab.

#	searches
15	(((draw or write) adj2 skin*) or fake blood or marker pen* or red marker*).ti,ab.
16	(((elastic or rubber) adj band*) or ((flick* or ping* or snap*) adj2 band*)).ti,ab.
17	((hit* or punch*) adj2 cushion*).ti,ab.
18	(listen* adj2 music).ti,ab.
19	(physical* adj3 (intervention* or strateg* or technique*)).ti,ab.
20	(scream adj2 loud*).ti,ab.
21	((squeez* adj2 ice) or icecube* or ice cube*).ti,ab.
22	(stress ball* or (pinch* adj2 skin)).ti,ab.
23	(keep* adj2 chart*).ti,ab.
24	(reward* adj3 (intervention* or strateg* or technique*)).ti,ab.
25	(reward* adj2 (themselve* or yoursel*)).ti,ab.
26	(baking or cooking).ti,ab.
27	(((call* or meet* or ring* or talk*) adj2 (famil* or friend*)) or (call in or callline* or call line* or help line* or helpline* or hotline* or hot line* or phone in or phonein or (caller*1 adj3 (interven* or program* or therap* or treat*)) or (talk* adj2 friend*) or ((phone* or telephone*) adj2 (friend* or support*)))).ti,ab.
28	(clear out or chores or housework* or house work or (tidy* adj2 (room or up*1))).ti,ab.
29	((distract* adj4 (intervention* or manag* or strateg* or technique* or tool*)) or distractions or (((divert adj2 attention) or distract*) adj5 (automutilat* or auto mutilat* or cutt* or (self adj2 cut*) or selfdestruct* or self destruct* or selfharm* or self harm* or selfimmolat* or self immolat* or selfinflict* or self inflict* or selfinjur* or self injur* or selfmutilat* or self mutilat* or selfpoison* or self poison* or selfwound* or self wound* or suicid*))).ti,ab.
30	(juggl* or (learn adj2 skill*) or loom band* or sew or sewing or knit or knitting).ti,ab.
31	paper chain*.ti,ab.
32	(picture* adj2 cloud*).ti,ab.
33	(watch* adj2 (tv or television)).ti,ab.
34	(talk* adj3 feeling*).ti,ab.
35	(((control?ed or deep) adj breathing) or ((positive* adj2 (emotion* or therap* or think* or psycho*)) or (emotion* adj2 (cope or coping or psychotherap* or therap*))) or (damag* adj2 limit*) or (goal* adj2 set*) or therapeutic contract or ((cope* or coping) adj3 (approach* or assist* or coach* or educat* or help* or imagery or instruct* or interven* or learn* or manag* or modif* or program* or seminar* or strateg* or support* or teach* or technique* or therap* or train* or treat* or workshop* or work shop*))).ti,ab.
36	or/4-35
37	(((automutilat* or auto mutilat* or cutt* or (self adj2 cut*) or selfdestruct* or self destruct* or selfharm* or self harm* or selfimmolat* or self immolat* or selfinflict* or self inflict* or selfinjur* or self injur* or selfmutilat* or self mutilat* or selfpoison* or self poison* or selfwound* or self wound* or suicid*) adj3 (decreas* or minimis* or prevent* or reduc* or safe*) adj6

#	searches
	(approach* or communicat* or counsel* or educat* or instruct* or interven* or learn* or manag* or module* or network* or program* or psychoanaly* or psychotherap* or rehab* or skill* or strateg* or support* or taught or teach* or technique* or therap* or train* or treat* or workshop* or work shop*)) or ((automutilat* or auto mutilat* or cutt* or (self adj2 cut*) or selfdestruct* or self destruct* or selfharm* or self harm* or selfimmolat* or self immolat* or selfinflict* or self inflict* or selfinjur* or self injur* or selfmutilat* or self mutilat* or selfpoison* or self poison* or selfwound* or self wound* or suicid*) adj4 (((decreas* or diminish* or fall* or fell or less* or limit* or low or lower*) adj2 risk*) or less destruc* or less harmful or minimi* or more safe* or reduc*) adj8 (approach* or communicat* or counsel* or educat* or instruct* or interven* or learn* or manag* or module* or network* or program* or psychoanaly* or psychotherap* or rehab* or skill* or strateg* or support* or taught or teach* or technique* or therap* or tool* or train* or treat* or workshop* or work shop*))).ti,ab.
38	exp self-injurious behavior/pc or self mutilation/pc or suicide/pc or suicidal ideation/pc or suicide, attempted/pc or suicide, completed/pc
39	or/37-38
40	animal assisted therapy/ or baths/ or community networks/ or cooking/ or exp exercise/ or friends/ or housekeeping/ or exp leisure activities/ or massage/ or exp mind-body therapies/ or music/ or patient comfort/ or peer group/ or self care/ or self help groups/ or self management/ or exp sensory art therapies/ or television/ or hotline*.sh. or ((first aid or wound infection) and educat*).sh. or first aid/ed
41	(meditat* or relax* or yoga).ti,ab.
42	(active living or bicycling or ((a?robic* or physical*) adj (activit* or agil* or educat* or fitness*)) or (cycling not rapid cycling) or dance or dancing or gardening or hobby or hobbies or jogging or recreation* or running or sport* or swimming or tidying or walking or yoga).ti,ab.
43	((self adj (care or instruct* or manag* or monitor* or regulat* or reinforc* or re inforc*)) or selfcare or selfinstruct* or selfmanag* or selfmonitor* or selfregulat* or (minimal adj (contact or guidance)) or (mutual adj (help or aid or support*))).ti,ab.
44	((support* adj (based or cent* or focus?ed)) or (support* adj2 (approach* or educat* or friend* or family or instruct* or interven* or learn* or module* or network* or peer*1 or program* or strateg* or technique* or therap* or train* or treat* or workshop* or work shop*)) or ((community or emotion* or network* or organi?ation* or peer*) adj2 support*) or (network* adj2 (discuss* or exchang* or interact* or meeting*))).ti,ab.
45	(or/40-44) and 39
46	or/36,45
47	3 and 46
48	letter/ or editorial/ or news/ or exp historical article/ or anecdotes as topic/ or comment/ or case report/ or (letter or comment*).ti. or (animals not humans).sh. or exp animals, laboratory/ or exp animal experimentation/ or exp models, animal/ or exp rodentia/ or (rat or rats or mouse or mice).ti.
49	47 not 48
50	limit 49 to yr="2000-current"
51	limit 50 to english language

Database(s): Embase and Emcare – OVID interface

Date of last search: 10th August 2020

#	searches
1	automutilation/ or exp suicidal behavior/
2	(automutilat* or auto mutilat* or cutt* or (self adj2 cut*) or selfdestruct* or self destruct* or selfharm* or self harm* or selfimmolat* or self immolat* or selfinflict* or self inflict* or selfinjur* or self injur* or selfmutilat* or self mutilat* or selfpoison* or self poison* or selfwound* or self wound* or suicid*).ti,ab.
3	or/1-2
4	risk management/ or risk reduction/
5	(((controlled or safe*) adj self harm) or (((nurs* adj2 present) or supervis*) adj2 (selfharm* or self harm)) or (harm adj (minimi* or reduc*))).ti,ab. or (harm* adj2 (minimi* or reduc*)).ti. or (((approach* or communicat* or counsel* or educat* or instruct* or interven* or learn* or manag* or module* or network* or program* or psychoanaly* or psychotherap* or rehab* or skill* or strateg* or support* or taught or teach* or technique* or therap* or tool* or train* or treat* or workshop* or work shop*) adj4 ((cut* or decreas* or diminish* or fall* or fell or less* or limit* or low or lower* or minimi* or reduc*) adj2 risk)).ti,ab. and 2) or ((((method* or strateg* or technique*) adj3 alternative* adj3 self harm) or selfharm or (less adj2 (destructive or harmful) adj3 (method* or strateg* or technique) adj3 (self harm or selfharm))).ti,ab. and 2)
6	(((access* or provid*) adj3 (first aid or (medical adj (attention* or care)))) or ((clean* or sterile) adj2 (bandag* or blade* or cutt* or equipment or instrument* or rarisk zor* or wound*)) or dialectical behavio?r therap* or ((educat* or information* or instruct* or learn* or pamphlet*) adj3 (cut* or sever*) adj3 (arter* or nerve* or tendon*)) or ((advice or advis* or educat* or information* or learn* or pamphlet*) adj5 (infection* or safety or scar* or woundcare or wound care)) or damage limitation).ti,ab.
7	((comfort* adj3 (intervention* or manag* or strateg* or technique* or tool*)) or self comfort*).ti,ab.
8	((cuddle adj2 tedd*) or (strok* adj2 pet*)).ti,ab.
9	emergency box.ti,ab.
10	((have or take) adj2 (bath* or shower*)).ti,ab.
11	(hug* adj2 (person* or someone or themselv* or yourself)).ti,ab.
12	(massag* adj3 (arm* or hand* or leg* or feet)).ti,ab.
13	((paint* adj2 nail*) or hairdresser* or (hair adj2 done)).ti,ab.
14	(chew* adj2 (ginger or ice)).ti,ab.
15	(((draw or write) adj2 skin*) or fake blood or marker pen* or red marker*).ti,ab.
16	(((elastic or rubber) adj band*) or ((flick* or ping* or snap*) adj2 band*)).ti,ab.
17	((hit* or punch*) adj2 cushion*).ti,ab.
18	(listen* adj2 music).ti,ab.
19	(physical* adj3 (intervention* or strateg* or technique*)).ti,ab.
20	(scream adj2 loud*).ti,ab.
21	((squeez* adj2 ice) or icecube* or ice cube*).ti,ab.

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#	searches
22	(stress ball* or (pinch* adj2 skin)).ti,ab.
23	(keep* adj2 chart*).ti,ab.
24	(reward* adj3 (intervention* or strateg* or technique*)).ti,ab.
25	(reward* adj2 (themselve* or yoursel*)).ti,ab.
26	(baking or cooking).ti,ab.
27	(((call* or meet* or ring* or talk*) adj2 (famil* or friend*)) or (call in or callline* or call line* or help line* or helpline* or hotline* or hot line* or phone in or phonein or (caller*1 adj3 (interven* or program* or therap* or treat*)) or (talk* adj2 friend*) or ((phone* or telephone*) adj2 (friend* or support*)))).ti,ab.
28	(clear out or chores or housework* or house work or (tidy* adj2 (room or up*1))).ti,ab.
29	((distract* adj4 (intervention* or manag* or strateg* or technique* or tool*)) or distractions or (((divert adj2 attention) or distract*) adj5 (automutilat* or auto mutilat* or cutt* or (self adj2 cut*) or selfdestruct* or self destruct* or selfharm* or self harm* or selfimmolat* or self immolat* or selfinflict* or self inflict* or selfinjur* or self injur* or selfmutilat* or self mutilat* or selfpoison* or self poison* or selfwound* or self wound* or suicid*))).ti,ab.
30	(juggl* or (learn adj2 skill*) or loom band* or sew or sewing or knit or knitting).ti,ab.
31	paper chain*.ti,ab.
32	(picture* adj2 cloud*).ti,ab.
33	(watch* adj2 (tv or television)).ti,ab.
34	(talk* adj3 feeling*).ti,ab.
35	(((control?ed or deep) adj breathing) or ((positive* adj2 (emotion* or therap* or think* or psycho*)) or (emotion* adj2 (cope or coping or psychotherap* or therap*))) or (damag* adj2 limit*) or (goal* adj2 set*) or therapeutic contract or ((cope* or coping) adj3 (approach* or assist* or coach* or educat* or help* or imagery or instruct* or interven* or learn* or manag* or modif* or program* or seminar* or strateg* or support* or teach* or technique* or therap* or train* or treat* or workshop* or work shop*))).ti,ab.
36	or/4-35
37	(((automutilat* or auto mutilat* or cutt* or (self adj2 cut*) or selfdestruct* or self destruct* or selfharm* or self harm* or selfimmolat* or self immolat* or selfinflict* or self inflict* or selfinjur* or self injur* or selfmutilat* or self mutilat* or selfpoison* or self poison* or selfwound* or self wound* or suicid*) adj3 (decreas* or minimis* or prevent* or reduc* or safe*) adj6 (approach* or communicat* or counsel* or educat* or instruct* or interven* or learn* or manag* or module* or network* or program* or psychoanaly* or psychotherap* or rehab* or skill* or strateg* or support* or taught or teach* or technique* or therap* or train* or treat* or workshop* or work shop*)) or ((automutilat* or auto mutilat* or cutt* or (self adj2 cut*) or selfdestruct* or self destruct* or selfharm* or self harm* or selfimmolat* or self immolat* or selfinflict* or self inflict* or selfinjur* or self injur* or selfmutilat* or self mutilat* or selfpoison* or self poison* or selfwound* or self wound* or suicid*) adj4 (((decreas* or diminish* or fall* or fell or less* or limit* or low or lower*) adj2 risk*) or less destruc* or less harmful or minimi* or more safe* or reduc*) adj8 (approach* or communicat* or counsel* or educat* or

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#	searches
	instruct* or interven* or learn* or manag* or module* or network* or program* or psychoanaly* or psychotherap* or rehab* or skill* or strateg* or support* or taught or teach* or technique* or therap* or tool* or train* or treat* or workshop* or work shop*))).ti,ab.
38	(*automutilation/ or exp *suicidal behavior/) and prevention.hw.
39	or/37-38
40	exp animal assisted therapy/ or exp bath/ or exp community care/ or cooking/ or exp exercise/ or friend/ or housekeeping/ or leisure/ or exp recreation/ or exp massage/ or exp alternative medicine/ or music/ or patient comfort/ or exp peer group/ or exp self care/ or art therapy/ or television/ or hotline/ or wound infection/ or first aid/
41	(meditat* or relax* or yoga).ti,ab.
42	(active living or bicycling or ((a?robic* or physical*) adj (activit* or agil* or educat* or fitness*)) or (cycling not rapid cycling) or dance or dancing or gardening or hobby or hobbies or jogging or recreation* or running or sport* or swimming or tidying or walking or yoga).ti,ab.
43	((self adj (care or instruct* or manag* or monitor* or regulat* or reinforc* or re inforc*)) or selfcare or selfinstruct* or selfmanag* or selfmonitor* or selfregulat* or (minimal adj (contact or guidance)) or (mutual adj (help or aid or support*))).ti,ab.
44	((support* adj (based or cent* or focus?ed)) or (support* adj2 (approach* or educat* or friend* or family or instruct* or interven* or learn* or module* or network* or peer*1 or program* or strateg* or technique* or therap* or train* or treat* or workshop* or work shop*)) or ((community or emotion* or network* or organi?ation* or peer*) adj2 support*) or (network* adj2 (discuss* or exchang* or interact* or meeting*))).ti,ab.
45	(or/40-44) and 39
46	or/36,45
47	3 and 46
48	(animal/ not human/) or exp Animal Experiment/ or animal model/ or exp Experimental Animal/ or nonhuman/ or exp Rodent/ or (rat or rats or mouse or mice).ti.
49	47 not 48
50	limit 49 to yr="2000-current"
51	limit 50 to english language

Database(s): PsycINFO – OVID interface
Date of last search: 10th August 2020

#	searches
1	self-injurious behavior/ or self-destructive behavior/ or self-inflicted wounds/ or self-mutilation/ or self-poisoning/ or exp suicide/ or suicidal ideation/
2	(automutilat* or auto mutilat* or cutt* or (self adj2 cut*) or selfdestruct* or self destruct* or selfharm* or self harm* or selfimmolat* or self immolat* or selfinflict* or self inflict* or selfinjur* or self injur* or selfmutilat* or self mutilat* or selfpoison* or self poison* or selfwound* or self wound* or suicid*).ti,ab.
3	or/1-2

#	searches
4	risk management/
5	(((controlled or safe*) adj self harm) or (((nurs* adj2 present) or supervis*) adj2 (selfharm* or self harm)) or (harm adj (minimi* or reduc*))).ti,ab. or (harm* adj2 (minimi* or reduc*)).ti. or (((approach* or communicat* or counsel* or educat* or instruct* or interven* or learn* or manag* or module* or network* or program* or psychoanaly* or psychotherap* or rehab* or skill* or strateg* or support* or taught or teach* or technique* or therap* or tool* or train* or treat* or workshop* or work shop*) adj4 ((cut* or decreas* or diminish* or fall* or fell or less* or limit* or low or lower* or minimi* or reduc*) adj2 risk)).ti,ab. and 2) or ((((method* or strateg* or technique*) adj3 alternative* adj3 self harm) or selfharm or (less adj2 (destructive or harmful) adj3 (method* or strateg* or technique) adj3 (self harm or selfharm))).ti,ab. and 2)
6	(((access* or provid*) adj3 (first aid or (medical adj (attention* or care)))) or ((clean* or sterile) adj2 (bandag* or blade* or cutt* or equipment or instrument* or razor* or wound*)) or dialectical behavio?r therap* or ((educat* or information* or instruct* or learn* or pamphlet*) adj3 (cut* or sever*) adj3 (arter* or nerve* or tendon*)) or ((advice or advis* or educat* or information* or learn* or pamphlet*) adj5 (infection* or safety or scar* or woundcare or wound care)) or damage limitation).ti,ab.
7	((comfort* adj3 (intervention* or manag* or strateg* or technique* or tool*)) or self comfort*).ti,ab.
8	((cuddle adj2 tedd*) or (strok* adj2 pet*)).ti,ab.
9	emergency box.ti,ab.
10	((have or take) adj2 (bath* or shower*)).ti,ab.
11	(hug* adj2 (person* or someone or themselv* or yourself)).ti,ab.
12	(massag* adj3 (arm* or hand* or leg* or feet)).ti,ab.
13	((paint* adj2 nail*) or hairdresser* or (hair adj2 done)).ti,ab.
14	(chew* adj2 (ginger or ice)).ti,ab.
15	(((draw or write) adj2 skin*) or fake blood or marker pen* or red marker*).ti,ab.
16	(((elastic or rubber) adj band*) or ((flick* or ping* or snap*) adj2 band*)).ti,ab.
17	((hit* or punch*) adj2 cushion*).ti,ab.
18	(listen* adj2 music).ti,ab.
19	(physical* adj3 (intervention* or strateg* or technique*)).ti,ab.
20	(scream adj2 loud*).ti,ab.
21	((squeez* adj2 ice) or icecube* or ice cube*).ti,ab.
22	(stress ball* or (pinch* adj2 skin)).ti,ab.
23	(keep* adj2 chart*).ti,ab.
24	(reward* adj3 (intervention* or strateg* or technique*)).ti,ab.
25	(reward* adj2 (themselve* or yoursel*)).ti,ab.
26	(baking or cooking).ti,ab.
27	((((call* or meet* or ring* or talk*) adj2 (famil* or friend*)) or (call in or callline* or call line* or help line* or helpline* or hotline* or hot line* or phone in or phonein or (caller*1 adj3 (interven* or program* or therap* or

#	searches
	treat*)) or (talk* adj2 friend*) or ((phone* or telephone*) adj2 (friend* or support*)))).ti,ab.
28	(clear out or chores or housework* or house work or (tidy* adj2 (room or up*1)))).ti,ab.
29	((distract* adj4 (intervention* or manag* or strateg* or technique* or tool*)) or distractions or (((divert adj2 attention) or distract*) adj5 (automutilat* or auto mutilat* or cutt* or (self adj2 cut*) or selfdestruct* or self destruct* or selfharm* or self harm* or selfimmolat* or self immolat* or selfinflict* or self inflict* or selfinjur* or self injur* or selfmutilat* or self mutilat* or selfpoison* or self poison* or selfwound* or self wound* or suicid*)))).ti,ab.
30	(juggl* or (learn adj2 skill*) or loom band* or sew or sewing or knit or knitting).ti,ab.
31	paper chain*.ti,ab.
32	(picture* adj2 cloud*).ti,ab.
33	(watch* adj2 (tv or television)).ti,ab.
34	(talk* adj3 feeling*).ti,ab.
35	(((control?ed or deep) adj breathing) or ((positive* adj2 (emotion* or therap* or think* or psycho*)) or (emotion* adj2 (cope or coping or psychotherap* or therap*))) or (damag* adj2 limit*) or (goal* adj2 set*) or therapeutic contract or ((cope* or coping) adj3 (approach* or assist* or coach* or educat* or help* or imagery or instruct* or interven* or learn* or manag* or modif* or program* or seminar* or strateg* or support* or teach* or technique* or therap* or train* or treat* or workshop* or work shop*))).ti,ab.
36	or/4-35
37	(((automutilat* or auto mutilat* or cutt* or (self adj2 cut*) or selfdestruct* or self destruct* or selfharm* or self harm* or selfimmolat* or self immolat* or selfinflict* or self inflict* or selfinjur* or self injur* or selfmutilat* or self mutilat* or selfpoison* or self poison* or selfwound* or self wound* or suicid*) adj3 (decreas* or minimis* or prevent* or reduc* or safe*) adj6 (approach* or communicat* or counsel* or educat* or instruct* or interven* or learn* or manag* or module* or network* or program* or psychoanaly* or psychotherap* or rehab* or skill* or strateg* or support* or taught or teach* or technique* or therap* or train* or treat* or workshop* or work shop*)) or ((automutilat* or auto mutilat* or cutt* or (self adj2 cut*) or selfdestruct* or self destruct* or selfharm* or self harm* or selfimmolat* or self immolat* or selfinflict* or self inflict* or selfinjur* or self injur* or selfmutilat* or self mutilat* or selfpoison* or self poison* or selfwound* or self wound* or suicid*) adj4 (((decreas* or diminish* or fall* or fell or less* or limit* or low or lower*) adj2 risk*) or less destruc* or less harmful or minimi* or more safe* or reduc*) adj8 (approach* or communicat* or counsel* or educat* or instruct* or interven* or learn* or manag* or module* or network* or program* or psychoanaly* or psychotherap* or rehab* or skill* or strateg* or support* or taught or teach* or technique* or therap* or tool* or train* or treat* or workshop* or work shop*))).ti,ab.
38	exp self-injurious behavior/pc or self mutilation/pc or suicide/pc or suicidal ideation/pc or suicide, attempted/pc or suicide, completed/pc
39	or/37-38
40	animal assisted therapy/ or social networks/ or food preparation/ or exp exercise/ or friendship/ or household management/ or exp leisure time/ or

#	searches
	exp recreation/ or massage/ or mind-body therapy/ or music/ or music therapy/ or peer relations/ or self care/ or exp self help techniques/ or exp creative arts therapy/ or television viewing/ or hot line services/ or (wounds/ and educat*).sh.
41	(meditat* or relax* or yoga).ti,ab.
42	(active living or bicycling or ((a?robic* or physical*) adj (activit* or agil* or educat* or fitness*)) or (cycling not rapid cycling) or dance or dancing or gardening or hobby or hobbies or jogging or recreation* or running or sport* or swimming or tidying or walking or yoga).ti,ab.
43	((self adj (care or instruct* or manag* or monitor* or regulat* or reinforc* or re inforc*)) or selfcare or selfinstruct* or selfmanag* or selfmonitor* or selfregulat* or (minimal adj (contact or guidance)) or (mutual adj (help or aid or support*))).ti,ab.
44	((support* adj (based or cent* or focus?ed)) or (support* adj2 (approach* or educat* or friend* or family or instruct* or interven* or learn* or module* or network* or peer*1 or program* or strateg* or technique* or therap* or train* or treat* or workshop* or work shop*)) or ((community or emotion* or network* or organi?ation* or peer*) adj2 support*) or (network* adj2 (discuss* or exchang* or interact* or meeting*))).ti,ab.
45	(or/40-44) and 39
46	or/36,45
47	3 and 46
48	limit 47 to yr="2000-current"
49	limit 48 to english language

Database(s): Cochrane Library - Wiley interface
Cochrane Database of Systematic Reviews, Issue 8 of 12, August 2020; Cochrane Central Register of Controlled Trials, Issue 8 of 12, August 2020
Date of last search: 10th August 2020

#	searches
1	MeSH descriptor: [poisoning] this term only
2	MeSH descriptor: [self-injurious behavior] explode all trees
3	MeSH descriptor: [self mutilation] this term only
4	MeSH descriptor: [suicide] this term only
5	MeSH descriptor: [suicidal ideation] this term only
6	MeSH descriptor: [suicide, attempted] this term only
7	MeSH descriptor: [suicide, completed] this term only
8	(automutilat* or "auto mutilat*" or cutt* or (self near/2 cut*) or selfdestruct* or "self destruct*" or selfharm* or "self harm*" or selfimmolat* or "self immolat*" or selfinflict* or "self inflict*" or selfinjur* or "self injur*" or selfmutilat* or "self mutilat*" or selfpoison* or "self poison*" or selfwound* or "self wound*" or suicid*):ti,ab.
9	{or #1-#8}
10	MeSH descriptor: [risk management] this term only
11	MeSH descriptor: [risk reduction behavior] this term only

#	searches
12	(((controlled or safe*) next "self harm") or (((nurs* near/2 present) or supervis*) near/2 (selfharm* or "self harm")) or (harm next (minimi* or reduc*))):ti,ab. or (harm* near/2 (minimi* or reduc*)):ti. or (((approach* or communicat* or counsel* or educat* or instruct* or interven* or learn* or manag* or module* or network* or program* or psychoanaly* or psychotherap* or rehab* or skill* or strateg* or support* or taught or teach* or technique* or therap* or tool* or train* or treat* or workshop* or "work shop*") near/4 ((cut* or decreas* or diminish* or fall* or fell or less* or limit* or low or lower* or minimi* or reduc*) near/2 risk)):ti,ab.) or ((((method* or strateg* or technique*) near/3 alternative* near/3 "self harm") or selfharm or (less near/2 (destructive or harmful) near/3 (method* or strateg* or technique) near/3 (self harm or selfharm))):ti,ab.)
13	#12 and #8
14	(((access* or provid*) near/3 ("first aid" or (medical next (attention* or care)))) or ((clean* or sterile) near/2 (bandag* or blade* or cutt* or equipment or instrument* or razor* or wound*)) or "dialectical behavio?r" therap* or ((educat* or information* or instruct* or learn* or pamphlet*) near/3 (cut* or sever*) near/3 (arter* or nerve* or tendon*)) or ((advice or advis* or educat* or information* or learn* or pamphlet*) near/5 (infection* or safety or scar* or woundcare or "wound care")) or "damage limitation"):ti,ab.
15	((comfort* near/3 (intervention* or manag* or strateg* or technique* or tool*)) or "self comfort*"):ti,ab.
16	((cuddle near/2 tedd*) or (strok* near/2 pet*)):ti,ab.
17	"emergency box":ti,ab.
18	((have or take) near/2 (bath* or shower*)):ti,ab.
19	(hug* near/2 (person* or someone or themselv* or yourself)):ti,ab.
20	(massag* near/3 (arm* or hand* or leg* or feet)):ti,ab.
21	((paint* near/2 nail*) or hairdresser* or (hair near/2 done)):ti,ab.
22	(chew* near/2 (ginger or ice)):ti,ab.
23	(((draw or write) near/2 skin*) or "fake blood" or "marker pen*" or "red marker*"):ti,ab.
24	(((elastic or rubber) next band*) or ((flick* or ping* or snap*) near/2 band*)):ti,ab.
25	((hit* or punch*) near/2 cushion*):ti,ab.
26	(listen* near/2 music):ti,ab.
27	(physical* near/3 (intervention* or strateg* or technique*)):ti,ab.
28	(scream near/2 loud*):ti,ab.
29	((squeez* near/2 ice) or icecube* or "ice cube*"):ti,ab.
30	("stress ball*" or (pinch* near/2 skin)):ti,ab.
31	(keep* near/2 chart*):ti,ab.
32	(reward* near/3 (intervention* or strateg* or technique*)):ti,ab.
33	(reward* near/2 (themselve* or yoursel*)):ti,ab.
34	(baking or cooking):ti,ab.
35	(((call* or meet* or ring* or talk*) near/2 (famil* or friend*)) or ("call in" or callline* or "call line*" or "help line*" or helpline* or hotline* or "hot line*" or "phone in" or phonein or (caller* near/3 (interven* or program* or therap* or

#	searches
	treat*)) or (talk* near/2 friend*) or ((phone* or telephone*) near/2 (friend* or support*)))):ti,ab.
36	("clear out" or chores or housework* or "house work" or (tidy* near/2 (room or up*))):ti,ab.
37	((distract* near/4 (intervention* or manag* or strateg* or technique* or tool*)) or distractions or (((divert near/2 attention) or distract*) near/5 (automutilat* or "auto mutilat*" or cutt* or (self near/2 cut*) or selfdestruct* or "self destruct*" or selfharm* or "self harm*" or selfimmolat* or "self immolat*" or selfinflict* or "self inflict*" or selfinjur* or "self injur*" or selfmutilat* or "self mutilat*" or selfpoison* or "self poison*" or selfwound* or "self wound*" or suicid*))):ti,ab.
38	(juggl* or (learn near/2 skill*) or "loom band*" or sew or sewing or knit or knitting):ti,ab.
39	"paper chain*":ti,ab.
40	(picture* near/2 cloud*):ti,ab.
41	(watch* near/2 (tv or television)):ti,ab.
42	(talk* near/3 feeling*):ti,ab.
43	((((control?ed or deep) next breathing) or ((positive* near/2 (emotion* or therap* or think* or psycho*)) or (emotion* near/2 (cope or coping or psychotherap* or therap*))) or (damag* near/2 limit*) or (goal* near/2 set*) or "therapeutic contract" or ((cope* or coping) near/3 (approach* or assist* or coach* or educat* or help* or imagery or instruct* or interven* or learn* or manag* or modif* or program* or seminar* or strateg* or support* or teach* or technique* or therap* or train* or treat* or workshop* or "work shop*"))):ti,ab.
44	#10 or #11 or #13
45	{OR #14-#43}
46	#44 or #45
47	(((automutilat* or "auto mutilat*" or cutt* or (self near/2 cut*) or selfdestruct* or "self destruct*" or selfharm* or "self harm*" or selfimmolat* or "self immolat*" or selfinflict* or "self inflict*" or selfinjur* or "self injur*" or selfmutilat* or "self mutilat*" or selfpoison* or "self poison*" or selfwound* or "self wound*" or suicid*) near/3 (decreas* or minimis* or prevent* or reduc* or safe*) near/6 (approach* or communicat* or counsel* or educat* or instruct* or interven* or learn* or manag* or module* or network* or program* or psychoanaly* or psychotherap* or rehab* or skill* or strateg* or support* or taught or teach* or technique* or therap* or train* or treat* or workshop* or "work shop*")) or ((automutilat* or "auto mutilat*" or cutt* or (self near/2 cut*) or selfdestruct* or "self destruct*" or selfharm* or "self harm*" or selfimmolat* or "self immolat*" or selfinflict* or "self inflict*" or selfinjur* or "self injur*" or selfmutilat* or "self mutilat*" or selfpoison* or "self poison*" or selfwound* or "self wound*" or suicid*) near/4 (((decreas* or diminish* or fall* or fell or less* or limit* or low or lower*) near/2 risk*) or "less destruc*" or "less harmful" or minimi* or "more safe*" or reduc*) near/8 (approach* or communicat* or counsel* or educat* or instruct* or interven* or learn* or manag* or module* or network* or program* or psychoanaly* or psychotherap* or rehab* or skill* or strateg* or support* or taught or teach* or technique* or therap* or tool* or train* or treat* or workshop* or "work shop*"))):ti,ab.

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#	searches
48	MeSH descriptor: [exp self-injurious behavior] explode all trees and with qualifier(s): [prevention & control - PC]
49	MeSH descriptor: [self mutilation] this term only and with qualifier(s): [prevention & control - PC]
50	MeSH descriptor: [suicide] this term only and with qualifier(s): [prevention & control - PC]
51	MeSH descriptor: [suicidal ideation] this term only and with qualifier(s): [prevention & control - PC]
52	MeSH descriptor: [suicide, attempted] this term only and with qualifier(s): [prevention & control - PC]
53	MeSH descriptor: [suicide, completed] this term only and with qualifier(s): [prevention & control - PC]
54	{OR #47-#53}
55	MeSH descriptor: [animal assisted therapy] this term only
56	MeSH descriptor: [baths] this term only
57	MeSH descriptor: [community networks] this term only
58	MeSH descriptor: [cooking] this term only
59	MeSH descriptor: [exercise] explode all trees
60	MeSH descriptor: [friends] this term only
61	MeSH descriptor: [housekeeping] this term only
62	MeSH descriptor: [leisure activities] explode all trees
63	MeSH descriptor: [massage] this term only
64	MeSH descriptor: [mind-body therapies] explode all trees
65	MeSH descriptor: [music] this term only
66	MeSH descriptor: [patient comfort] this term only
67	MeSH descriptor: [peer group] this term only
68	MeSH descriptor: [self care] this term only
69	MeSH descriptor: [self help groups] this term only
70	MeSH descriptor: [self management] this term only
71	MeSH descriptor: [sensory art therapies] explode all trees
72	MeSH descriptor: [television] this term only
73	hotline*:kw.
74	((first aid or wound infection) and educat*):kw.
75	MeSH descriptor: [first aid] this term only and with qualifier(s): [education – ED]
76	(meditat* or relax* or yoga):ti,ab.
77	("active living" or bicycling or ((a?robic* or physical*) next (activit* or agil* or educat* or fitness*)) or (cycling not "rapid cycling") or dance or dancing or gardening or hobby or hobbies or jogging or recreation* or running or sport* or swimming or tidying or walking or yoga):ti,ab.
78	((self next (care or instruct* or manag* or monitor* or regulat* or reinforc* or re inforc*)) or selfcare or selfinstruct* or selfmanag* or selfmonitor* or selfregulat* or (minimal next (contact or guidance)) or (mutual next (help or aid or support*))):ti,ab.

#	searches
79	((support*next (based or cent* or focus?ed)) or (support* near/2 (approach* or educat* or friend* or family or instruct* or interven* or learn* or module* or network* or peer* or program* or strateg* or technique* or therap* or train* or treat* or workshop* or "work shop*")) or ((community or emotion* or network* or organi?ation* or peer*) near/2 support*) or (network* near/2 (discuss* or exchang* or interact* or meeting*))):ti,ab.
80	{OR #55-#79}
81	#46 or (#54 and #80)
82	(#9 and #81) with Cochrane Library publication date Between Jan 2000 and Aug 2020

Database(s): CDSR and HTA – CRD interface
Date of last search: 10th August 2020

#	Searches
1	MeSH descriptor: poisoning IN CDSR, HTA
2	MeSH descriptor: self-injurious behavior EXPLODE ALL TREES IN CDSR, HTA
3	MeSH descriptor: self mutilation IN CDSR, HTA
4	MeSH descriptor: suicide IN CDSR, HTA
5	MeSH descriptor: suicidal ideation IN CDSR, HTA
6	MeSH descriptor: suicide, attempted IN CDSR, HTA
7	MeSH descriptor: suicide, completed IN CDSR, HTA
8	(automutilat* or "auto mutilat*" or cutt* or (self near2 cut*) or selfdestruct* or "self destruct*" or selfharm* or "self harm*" or selfimmolat* or "self immolat*" or selfinflict* or "self inflict*" or selfinjur* or "self injur*" or selfmutilat* or "self mutilat*" or selfpoison* or "self poison*" or selfwound* or "self wound*" or suicid*) IN CDSR, HTA
9	(#1 or #2 or #3 or #4 or #5 or #6 or #7 or #8) from 2000 to 2020

Economic

A global, population based search was undertaken to find for economic evidence covering all parts of the guideline.

Database(s): MEDLINE(R) and Epub Ahead of Print, In-Process & Other Non-Indexed Citations and Daily – OVID interface
Date of last search: 12th August 2021

#	Searches
1	poisoning/ or exp self-injurious behavior/ or self mutilation/ or suicide/ or suicidal ideation/ or suicide, attempted/ or suicide, completed/
2	(automutilat* or auto mutilat* or cutt* or (self adj2 cut*) or selfdestruct* or self destruct* or selfharm* or self harm* or selfimmolat* or self immolat* or selfinflict* or self inflict* or selfinjur* or self injur* or selfmutilat* or self mutilat* or selfpoison* or self poison* or selfwound* or self wound* or suicid*).ti,ab.
3	or/1-2
4	Economics/

#	Searches
5	Value of life/
6	exp "Costs and Cost Analysis"/
7	exp Economics, Hospital/
8	exp Economics, Medical/
9	Economics, Nursing/
10	Economics, Pharmaceutical/
11	exp "Fees and Charges"/
12	exp Budgets/
13	budget*.ti,ab.
14	cost*.ti.
15	(economic* or pharmaco?economic*).ti.
16	(price* or pricing*).ti,ab.
17	(cost* adj2 (effective* or utilit* or benefit* or minimi* or unit* or estimat* or variable*)).ab.
18	(financ* or fee or fees).ti,ab.
19	(value adj2 (money or monetary)).ti,ab.
20	Quality-Adjusted Life Years/
21	Or/4-20
22	3 and 21
23	limit 22 to yr="2000 -current"

Database(s): Embase and Emcare – OVID interface
Date of last search: 12th August 2021

#	searches
1	automutilation/ or exp suicidal behavior/
2	(auto mutilat* or automutilat* or self cut* or selfcut* or self destruct* or selfdestruct* or self harm* or selfharm* or self immolat* or selfimmolat* or self inflict* or selfinflict* or self injur* or selfinjur* or self mutilat* or selfmutilat* or self poison* or selfpoison* or suicid*).ti,ab.
3	or/1-2
4	health economics/
5	exp economic evaluation/
6	exp health care cost/
7	exp fee/
8	budget/
9	funding/
10	budget*.ti,ab.
11	cost*.ti.
12	(economic* or pharmaco?economic*).ti.
13	(price* or pricing*).ti,ab.

#	searches
14	(cost* adj2 (effective* or utilit* or benefit* or minimi* or unit* or estimat* or variable*)).ab.
15	(financ* or fee or fees).ti,ab.
16	(value adj2 (money or monetary)).ti,ab.
17	Quality-Adjusted Life Year/
18	Or/4-17
19	3 and 18
20	limit 19 to yr="2000 -current"

Database(s): Cochrane Library - Wiley interface
Cochrane Central Register of Controlled Trials, Issue 8 of 12, August 2021
Date of last search: 12th August 2021

#	Searches
1	MeSH descriptor: [poisoning] this term only
2	MeSH descriptor: [self-injurious behavior] explode all trees
3	MeSH descriptor: [self mutilation] this term only
4	MeSH descriptor: [suicide] this term only
5	MeSH descriptor: [suicidal ideation] this term only
6	MeSH descriptor: [suicide, attempted] this term only
7	MeSH descriptor: [suicide, completed] this term only
8	(automutilat* or "auto mutilat*" or cutt* or (self near/2 cut*) or selfdestruct* or "self destruct*" or selfharm* or "self harm*" or selfimmolat* or "self immolat*" or selfinflict* or "self inflict*" or selfinjur* or "self injur*" or selfmutilat* or "self mutilat*" or selfpoison* or "self poison*" or selfwound* or "self wound*" or suicid*):ti,ab.
9	{or #1-#8}
10	MeSH descriptor: [Economics] this term only
11	MeSH descriptor: [Value of life] this term only
12	MeSH descriptor: [Costs and Cost Analysis] explode all trees
13	MeSH descriptor: [Economics, Hospital] explode all trees
14	MeSH descriptor: [Economics, Medical] explode all trees
15	MeSH descriptor: [Economics, Nursing] this term only
16	MeSH descriptor: [Economics, Pharmaceutical] this term only
17	MeSH descriptor: [Fees and Charges"
18	MeSH descriptor: [Budgets] this term only
19	budget*:ti,ab.
20	cost*.ti.
21	(economic* or pharmaco?economic*):ti.
22	(price* or pricing*):ti,ab.
23	(cost* near/2 (effective* or utilit* or benefit* or minimi* or unit* or estimat* or variable*)):ab.
24	(financ* or fee or fees):ti,ab.
25	(value near/2 (money or monetary)):ti,ab.
26	MeSH descriptor: [Quality-Adjusted Life Years] this term only

#	Searches
27	{OR #10-#26}
28	(#9 and #27) with Cochrane Library publication date Between Jan 2000 and Aug 2021

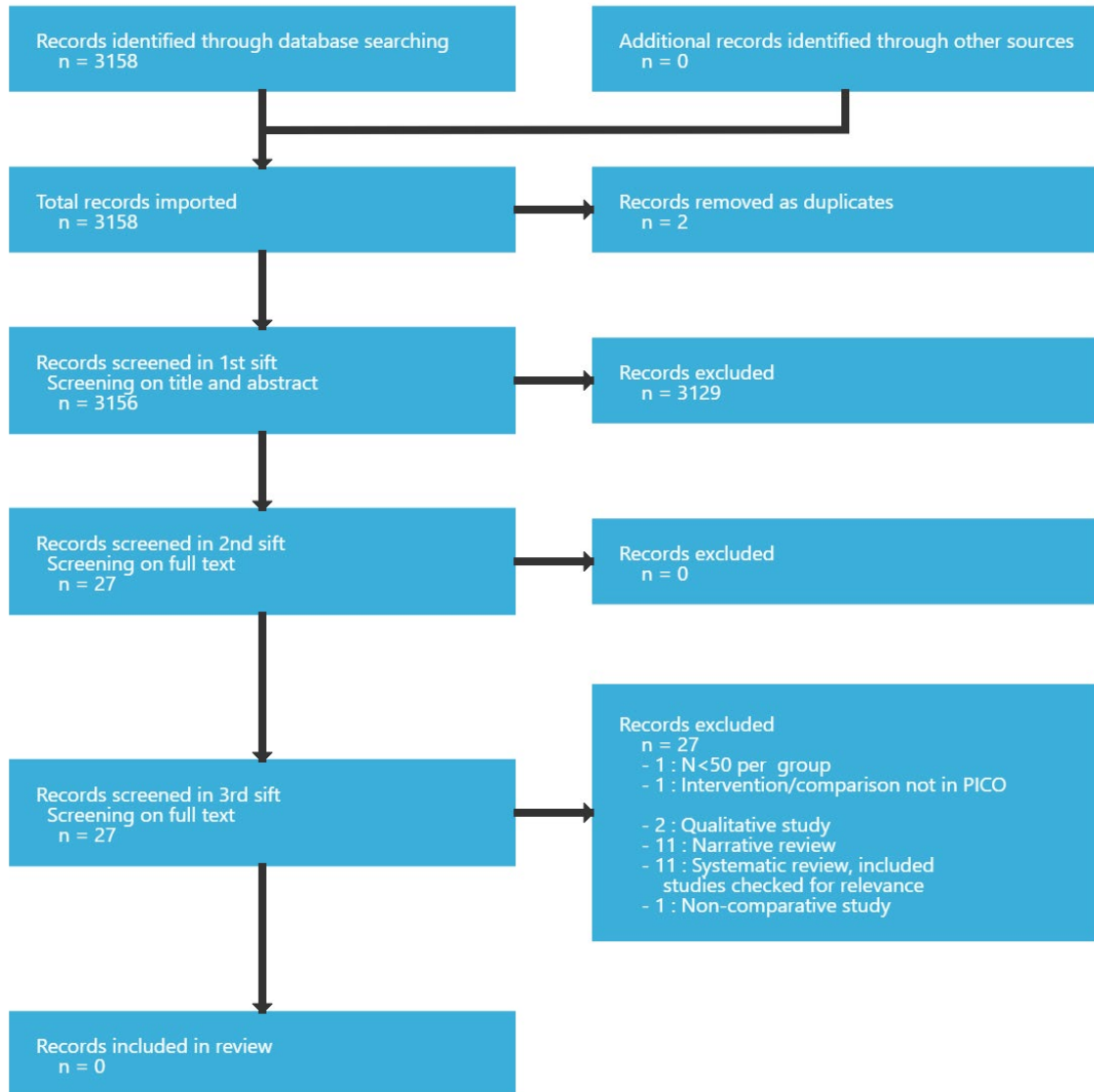**Database(s): NHS EED and HTA – CRD interface**
Date of last search: 12th August 2021

#	Searches
1	MeSH descriptor: poisoning IN NHSEED, HTA
2	MeSH descriptor: self-injurious behavior EXPLODE ALL TREES IN NHSEED, HTA
3	MeSH descriptor: self mutilation IN NHSEED, HTA
4	MeSH descriptor: suicide IN NHSEED, HTA
5	MeSH descriptor: suicidal ideation IN NHSEED, HTA
6	MeSH descriptor: suicide, attempted IN NHSEED, HTA
7	MeSH descriptor: suicide, completed IN NHSEED, HTA
8	(automutilat* or "auto mutilat*" or cutt* or (self near2 cut*) or selfdestruct* or "self destruct*" or selfharm* or "self harm*" or selfimmolat* or "self immolat*" or selfinflict* or "self inflict*" or selfinjur* or "self injur*" or selfmutilat* or "self mutilat*" or selfpoison* or "self poison*" or selfwound* or "self wound*" or suicid*) IN NHSEED, HTA
9	(#1 or #2 or #3 or #4 or #5 or #6 or #7 or #8) from 2000 to 2021

Appendix C Clinical evidence study selection

Study selection for review question: What is the effectiveness of harm minimisation strategies for people who have self-harmed?

Figure 1: Study selection flow chart

Self-harm: assessment, management and preventing recurrence: evidence review for harm minimisation strategies FINAL (September 2022)

Appendix D Evidence tables

Evidence tables for review question: What is the effectiveness of harm minimisation strategies for people who have self-harmed?

No studies were identified that met the inclusion criteria.

Appendix E Forest plots

Forest plots for review question: What is the effectiveness of harm minimisation strategies for people who have self-harmed?

No studies were identified that met the inclusion criteria.

Appendix F Modified GRADE tables

Modified GRADE tables for review question: What is the effectiveness of harm minimisation strategies for people who have self-harmed?
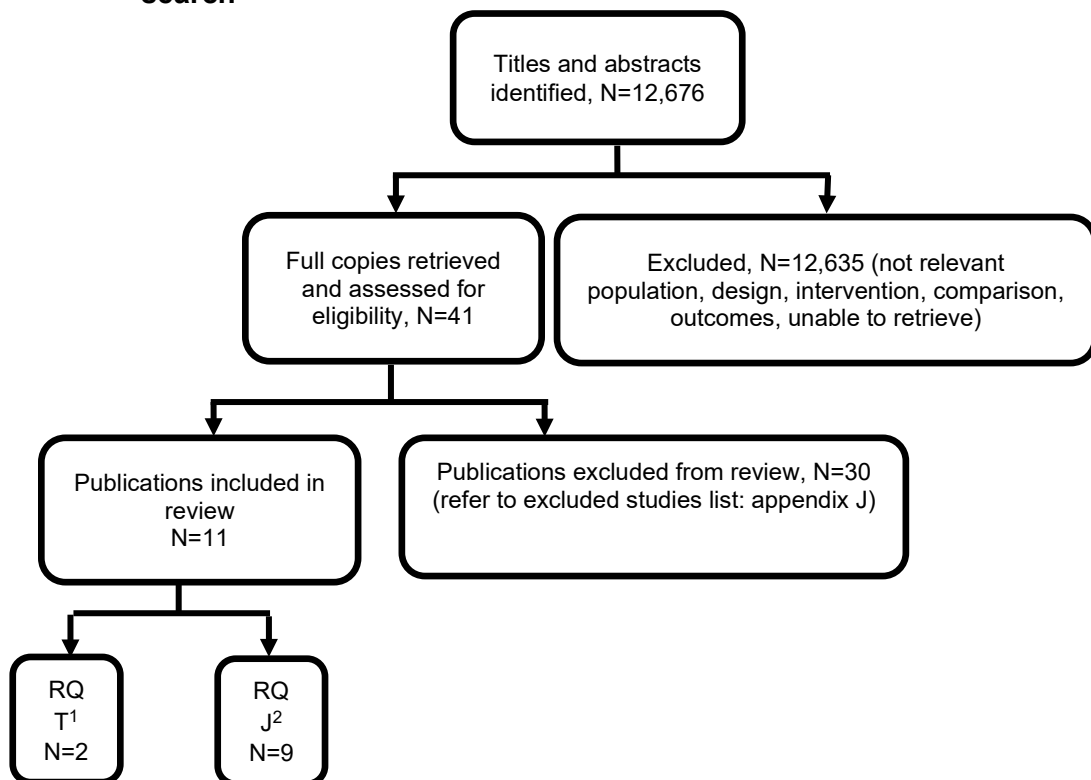
No studies were identified that met the inclusion criteria.

Appendix G Economic evidence study selection

Study selection for review question: What is the effectiveness of harm minimisation strategies for people who have self-harmed?

A global health economics search was undertaken for all areas covered in the guideline. Figure 2 shows the flow diagram of the selection process for economic evaluations of interventions and strategies associated with the care of people who have self-harmed.

Figure 2: Flow diagram of economic article selection for global health economic search

Titles and abstracts identified, N=12,676

Full copies retrieved and assessed for eligibility, N=41

Excluded, N=12,635 (not relevant population, design, intervention, comparison, outcomes, unable to retrieve)

Publications included in review
N=11

Publications excluded from review, N=30 (refer to excluded studies list: appendix J)

RQ
T[1]
N=2

RQ
J[2]
N=9

Abbreviations: RQ: Research question
Notes:
1 What are the most effective models of care for people who have self-harmed?
2 What psychological and psychosocial interventions (including safety plans and electronic health-based interventions) are effective for people who have self-harmed?

Appendix H Economic evidence tables

Economic evidence tables for review question: What is the effectiveness of harm minimisation strategies for people who have self-harmed?

No evidence was identified which was applicable to this review question.

Appendix I   Economic model

Economic model for review question: What is the effectiveness of harm minimisation strategies for people who have self-harmed?

No economic analysis was conducted for this review question.

Appendix J Excluded studies

Excluded studies for review question: What is the effectiveness of harm minimisation strategies for people who have self-harmed?

Excluded effectiveness studies

Table 3: Excluded studies and reasons for their exclusion

Study	Code [Reason]
Barker, E.; Kolves, K.; De Leo, D. (2014) Management of suicidal and self-harming behaviors in prisons: systematic literature review of evidence-based activities. Archives of Suicide Research 18: 227-40	- Systematic review, included studies checked for relevance
Birch, S., Cole, S., Hunt, K. et al. (2011) Self-harm and the positive risk taking approach. Can being able to think about the possibility of harm reduce the frequency of actual harm?. Journal of Mental Health 20: 293-303	- N<50 per group *Total N=45*
Comtois, K. A. (2002) A review of interventions to reduce the prevalence of parasuicide. Psychiatric Services 53: 1138-44	- Narrative review
Congdon, P. and Clarke, T. (2005) Assessing intervention effects in a community-based trial to reduce self-harm: A methodological case study. Public Health 119: 1011-1015	- Intervention/comparison not in PICO *Routine care + a psychosocial assessment + a negotiated care plan + direct access to a case manager versus routine care alone*
Edwards, S. D. and Hewitt, J. (2011) Can supervising self-harm be part of ethical nursing practice?. Nursing Ethics 18: 79-87	- Narrative review
Ganeshalingam, Y. (2008) Assessing risk and managing patients who deliberately self harm. British Journal of Hospital Medicine 69: M156-7	- Narrative review
Glenn, Catherine R., Esposito, Erika C., Porter, Andrew C. et al. (2019) Evidence base update of psychosocial treatments for self-injurious thoughts and behaviors in youth. Journal of Clinical Child and Adolescent Psychology 48: 357-392	- Systematic review, included studies checked for relevance
Gonzales, A. H. and Bergstrom, L. (2013) Adolescent non-suicidal self-injury (NSSI) interventions. Journal of Child and Adolescent Psychiatric Nursing 26: 124-130	- Systematic review, included studies checked for relevance *Not really meeting the criteria to be a systematic review, but included studies checked anyway*
Hanratty, Donal, Kilicaslan, Jan, Wilding, Helen et al. (2019) A systematic review of efficacy of Collaborative Assessment and Management of Suicidality (CAMS) in managing suicide risk and deliberate self-harm in adult populations. Australasian Psychiatry 27: 559-564	- Systematic review, included studies checked for relevance

Study	Code [Reason]
Holley, C., Horton, R., Cartmail, L. et al. (2012) Self-injury and harm minimisation on acute wards. Nursing standard (Royal College of Nursing (Great Britain) : 1987) 26: 50-56; quiz 58	- Narrative review
Horgan, Aine (2013) Review: Service user involvement in the evaluation of psycho-social intervention for self-harm: A systematic literature review. Journal of Research in Nursing 18: 131-132	- Narrative review
Howson, S. and Huline-Dickens, S. (2016) Do interventions reduce the risk of repeat self-harm or suicide in young people?: Commentary on... cochrane corner. BJ Psych Advances 22: 287-291	- Narrative review
Inckle, Kay (2011) The first cut is the deepest: A harm-reduction approach to self-injury. Social Work in Mental Health 9: 364-378	- Qualitative study
Iyengar, U., Snowden, N., Asarnow, J. R. et al. (2018) A further look at therapeutic interventions for suicide attempts and self-harm in adolescents: An updated systematic review of randomized controlled trials. Frontiers in Psychiatry 9: 1-16	- Systematic review, included studies checked for relevance
Mumme, T. A.; Mildred, H.; Knight, T. (2017) How Do People Stop Non-Suicidal Self-Injury? A Systematic Review. Archives of suicide research : official journal of the International Academy for Suicide Research 21: 470-489	- Systematic review, included studies checked for relevance
Ougrin, D., Tranah, T., Leigh, E. et al. (2012) Practitioner review: Self-harm in adolescents. Journal of child psychology and psychiatry, and allied disciplines 53: 337-350	- Systematic review, included studies checked for relevance
Ougrin, D., Tranah, T., Stahl, D. et al. (2015) Therapeutic interventions for suicide attempts and self-harm in adolescents: Systematic review and meta-analysis. Journal of the American Academy of Child and Adolescent Psychiatry 54: 97-107.e2	- Systematic review, included studies checked for relevance
Padmanathan, Prianka, Hall, Katherine, Moran, Paul et al. (2020) Prevention of suicide and reduction of self-harm among people with substance use disorder: A systematic review and meta-analysis of randomised controlled trials. Comprehensive Psychiatry 96	- Systematic review, included studies checked for relevance
Pembroke, L. (2006) Limiting self harm. Emergency nurse : the journal of the RCN Accident and Emergency Nursing Association 14: 8-10	- Narrative review

Study	Code [Reason]
Pengelly, Nicky, Ford, Barry, Blenkiron, Paul et al. (2008) Harm minimisation after repeated self-harm: Development of a trust handbook. Psychiatric Bulletin 32: 60-63	- Qualitative study
Pickard, H. and Pearce, S. (2017) Balancing costs and benefits: a clinical perspective does not support a harm minimisation approach for self-injury outside of community settings. Journal of medical ethics 43: 324-326	- Narrative review
Shaw, C. (2012) Harm-minimisation for self-harm. Mental health today (Brighton, England): 19-21	- Narrative review
Sullivan, P. J. (2017) Should healthcare professionals sometimes allow harm? The case of self-injury. Journal of medical ethics 43: 319-323	- Narrative review
Sullivan, Patrick Joseph (2019) Risk and responding to self injury: Is harm minimisation a step too far?. The Journal of Mental Health Training, Education and Practice 14: 1-11	- Narrative review
Timberlake, L. M.; Beeber, L. S.; Hubbard, G. (2020) Nonsuicidal Self-Injury: Management on the Inpatient Psychiatric Unit[Formula: see text. Journal of the American Psychiatric Nurses Association 26: 10-26	- Systematic review, included studies checked for relevance
Turner, B. J.; Austin, S. B.; Chapman, A. L. (2014) Treating nonsuicidal self-injury: A systematic review of psychological and pharmacological interventions. Canadian Journal of Psychiatry 59: 576-585	- Systematic review, included studies checked for relevance
Wadman, R., Nielsen, E., O'Raw, L. et al. (2019) "These Things Don't Work." Young People's Views on Harm Minimization Strategies as a Proxy for Self-Harm: A Mixed Methods Approach. Archives of suicide research : official journal of the International Academy for Suicide Research: 1-18	- Non-comparative study

Excluded economic studies

Table 4: Excluded studies from the guideline economic review

Study	Reason for Exclusion
Adrian, M., Lyon, A. R., Nicodimos, S., Pullmann, M. D., McCauley, E., Enhanced "Train and Hope" for Scalable, Cost-Effective Professional Development in Youth Suicide Prevention, Crisis, 39, 235-246, 2018	Not relevant to any of the review questions in the guideline - this study examined the impact of an educational training ongoing intervention, and the effect of the post-training reminder system, on mental health practitioners' knowledge, attitudes, and behaviour surrounding suicide

Study	Reason for Exclusion
	assessment and intervention. As well, this study was not a full health economic evaluation
Borschmann R, Barrett B, Hellier JM, et al. Joint crisis plans for people with borderline personality disorder: feasibility and outcomes in a randomised controlled trial. Br J Psychiatry. 2013;202(5):357-364.	Not relevant to any of the review questions in the guideline - this study examined the feasibility of recruiting and retaining adults with borderline personality disorder to a pilot randomised controlled trial investigating the potential efficacy and cost-effectiveness of using a joint crisis plan
Bustamante Madsen, L., Eddleston, M., Schultz Hansen, K., Konradsen, F., Quality Assessment of Economic Evaluations of Suicide and Self-Harm Interventions, Crisis, 39, 82-95, 2018	Study design - this review of health economics studies has been excluded for this guideline, but its references have been hand-searched for any relevant health economic study
Byford, S., Barrett, B., Aglan, A., Harrington, V., Burroughs, H., Kerfoot, M., Harrington, R. C., Lifetime and current costs of supporting young adults who deliberately poisoned themselves in childhood and adolescence, Journal of Mental Health, 18, 297-306, 2009	Study design – no comparative cost analysis
Byford, S., Leese, M., Knapp, M., Seivewright, H., Cameron, S., Jones, V., Davidson, K., Tyrer, P., Comparison of alternative methods of collection of service use data for the economic evaluation health care interventions, Health Economics, 16, 531-536, 2007	Study design – no comparative cost analysis
Byford, Sarah, Barber, Julie A., Harrington, Richard, Barber, Baruch Beautrais Blough Brent Brodie Byford Carlson Chernoff Collett Fergusson Garland Goldberg Harman Harrington Hawton Huber Kazdin Kazdin Kerfoot Kerfoot Kerfoot Knapp Lindsey McCullagh Miller Netten Reynolds Sadowski Shaffer Simms Wu, Factors that influence the cost of deliberate self-poisoning in children and adolescents, Journal of Mental Health Policy and Economics, 4, 113-121, 2001	Study design – no comparative cost analysis
Denchev, P., Pearson, J. L., Allen, M. H., Claassen, C. A., Currier, G. W., Zatzick, D. F., Schoenbaum, M., Modeling the cost-effectiveness of interventions to reduce suicide risk among hospital emergency department patients, Psychiatric Services, 69, 23-31, 2018	Not relevant to any of the review questions in the guideline - this study estimated the cost-effectiveness of outpatient interventions (Postcards, Telephone outreach, Cognitive Behaviour Therapy) to reduce suicide risk among patients presenting to general hospital emergency departments
Dunlap, L. J., Orme, S., Zarkin, G. A., Arias, S. A., Miller, I. W., Camargo, C. A., Sullivan, A. F., Allen, M. H., Goldstein, A. B., Manton, A. P., Clark, R., Boudreaux, E. D., Screening and Intervention for Suicide Prevention: A Cost-Effectiveness Analysis of the ED-SAFE Interventions, Psychiatric services (Washington, D.C.), appips201800445, 2019	Not relevant to any of the review questions in the guideline - this study estimated the cost-effectiveness of suicide screening followed by an intervention to identify suicidal individuals and prevent recurring self-harm
Fernando, S. M., Reardon, P. M., Ball, I. M., van Katwyk, S., Thavorn, K., Tanuseputro, P., Rosenberg, E., Kyeremanteng, K., Outcomes and Costs of Patients Admitted to the Intensive Care Unit Due to Accidental or Intentional Poisoning, Journal of Intensive Care Medicine, 35, 386-393, 2020	Study design – no comparative cost analysis

Study	Reason for Exclusion
Flood, C., Bowers, L., Parkin, D., Estimating the costs of conflict and containment on adult acute inpatient psychiatric wards, Nursing economic$, 26, 325-330, 324, 2008	Study design – no comparative cost analysis
Fortune, Z., Barrett, B., Armstrong, D., Coid, J., Crawford, M., Mudd, D., Rose, D., Slade, M., Spence, R., Tyrer, P., Moran, P., Clinical and economic outcomes from the UK pilot psychiatric services for personality-disordered offenders, International Review of Psychiatry, 23, 61-9, 2011	Not relevant to any of the review questions in the guideline
George, S., Javed, M., Hemington-Gorse, S., Wilson-Jones, N., Epidemiology and financial implications of self-inflicted burns, Burns, 42, 196-201, 2016	Study design – no comparative cost analysis
Gunnell, D., Shepherd, M., Evans, M., Are recent increases in deliberate self-harm associated with changes in socio-economic conditions? An ecological analysis of patterns of deliberate self-harm in Bristol 1972-3 and 1995-6, Psychological medicine, 30, 1197-1203, 2000	Study design - cost-of-illness study
Kapur, N., House, A., Dodgson, K., Chris, M., Marshall, S., Tomenson, B., Creed, F., Management and costs of deliberate self-poisoning in the general hospital: A multi-centre study, Journal of Mental Health, 11, 223-230, 2002	Study design – no comparative cost analysis
Kapur, N., House, A., May, C., Creed, F., Service provision and outcome for deliberate self-poisoning in adults - Results from a six centre descriptive study, Social Psychiatry and Psychiatric Epidemiology, 38, 390-395, 2003	Study design – no comparative cost analysis
Kinchin, I., Russell, A. M. T., Byrnes, J., McCalman, J., Doran, C. M., Hunter, E., The cost of hospitalisation for youth self-harm: differences across age groups, sex, Indigenous and non-Indigenous populations, Social Psychiatry and Psychiatric Epidemiology, 55, 425-434, 2020	Study design – no comparative cost analysis
O'Leary, F. M., Lo, M. C. I., Schreuder, F. B., "Cuts are costly": A review of deliberate self-harm admissions to a district general hospital plastic surgery department over a 12-month period, Journal of Plastic, Reconstructive and Aesthetic Surgery, 67, e109-e110, 2014	Study design – no comparative cost analysis
Olfson, M., Gameroff, M. J., Marcus, S. C., Greenberg, T., Shaffer, D., National trends in hospitalization of youth with intentional self-inflicted injuries, American Journal of Psychiatry, 162, 1328-1335, 2005	Study design – no comparative cost analysis
Ostertag, L., Golay, P., Dorogi, Y., Brovelli, S., Cromec, I., Edan, A., Barbe, R., Saillant, S., Michaud, L., Self-harm in French-speaking Switzerland: A socio-economic analysis (7316), Swiss Archives of Neurology, Psychiatry and Psychotherapy, 70 (Supplement 8), 48S, 2019	Conference abstract

Study	Reason for Exclusion
Ougrin, D., Corrigall, R., Poole, J., Zundel, T., Sarhane, M., Slater, V., Stahl, D., Reavey, P., Byford, S., Heslin, M., Ivens, J., Crommelin, M., Abdulla, Z., Hayes, D., Middleton, K., Nnadi, B., Taylor, E., Comparison of effectiveness and cost-effectiveness of an intensive community supported discharge service versus treatment as usual for adolescents with psychiatric emergencies: a randomised controlled trial, The Lancet Psychiatry, 5, 477-485, 2018	Not self-harm. In addition, the interventions evaluated in this economic analysis (a supported discharge service provided by an intensive community treatment team compared to usual care) were not relevant to any review questions
Palmer, S., Davidson, K., Tyrer, P., Gumley, A., Tata, P., Norrie, J., Murray, H., Seivewright, H., The cost-effectiveness of cognitive behavior therapy for borderline personality disorder: results from the BOSCOT trial, Journal of Personality Disorders, 20, 466-481, 2006	Not self-harm
Quinlivan L, Steeg S, Elvidge J, et al. Risk assessment scales to predict risk of hospital treated repeat self-harm: A cost-effectiveness modelling analysis. J Affect Disord. 2019;249:208-215.	Not relevant to any of the review questions in the guideline - this study estimated the cost-effectiveness of risk assessment scales versus clinical assessment for adults attending an emergency department following self-harm
Richardson JS, Mark TL, McKeon R. The return on investment of postdischarge follow-up calls for suicidal ideation or deliberate self-harm. Psychiatr Serv. 2014;65(8):1012-1019.	Not enough data reporting on cost-effectiveness findings
Smits, M. L., Feenstra, D. J., Eeren, H. V., Bales, D. L., Laurenssen, E. M. P., Blankers, M., Soons, M. B. J., Dekker, J. J. M., Lucas, Z., Verheul, R., Luyten, P., Day hospital versus intensive out-patient mentalisation-based treatment for borderline personality disorder: Multicentre randomised clinical trial, British Journal of Psychiatry, 216, 79-84, 2020	Not self-harm
Tsiachristas, A., Geulayov, G., Casey, D., Ness, J., Waters, K., Clements, C., Kapur, N., McDaid, D., Brand, F., Hawton, K., Incidence and general hospital costs of self-harm across England: estimates based on the multicentre study of self-harm, Epidemiology & Psychiatric Science, 29, e108, 2020	Study design – no comparative cost analysis
Tsiachristas, A., McDaid, D., Casey, D., Brand, F., Leal, J., Park, A. L., Geulayov, G., Hawton, K., General hospital costs in England of medical and psychiatric care for patients who self-harm: a retrospective analysis, The Lancet Psychiatry, 4, 759-767, 2017	Study design – no comparative cost analysis
Tubeuf, S., Saloniki, E. C., Cottrell, D., Parental Health Spillover in Cost-Effectiveness Analysis: Evidence from Self-Harming Adolescents in England, PharmacoEconomics, 37, 513-530, 2019	This study is not a separate study from one already included in the guideline for topic 5.2 (Cottrel 2018). This secondary analysis presents alternative parental health spillover quantification methods in the context of a randomised controlled trial comparing family therapy with treatment as usual as an intervention for self-harming adolescents of (Cottrel 2018), and discusses the practical limitations of those methods

Study	Reason for Exclusion
Tyrer, P., Thompson, S., Schmidt, U., Jones, V., Knapp, M., Davidson, K., Catalan, J., Airlie, J., Baxter, S., Byford, S., Byrne, G., Cameron, S., Caplan, R., Cooper, S., Ferguson, B., Freeman, C., Frost, S., Godley, J., Greenshields, J., Henderson, J., Holden, N., Keech, P., Kim, L., Logan, K., Manley, C., MacLeod, A., Murphy, R., Patience, L., Ramsay, L., De Munroz, S., Scott, J., Seivewright, H., Sivakumar, K., Tata, P., Thornton, S., Ukoumunne, O. C., Wessely, S., Randomized controlled trial of brief cognitive behaviour therapy versus treatment as usual in recurrent deliberate self-harm: The POPMACT study, Psychological medicine, 33, 969-976, 2003	Study design - no economic evaluation
Van Roijen, L. H., Sinnaeve, R., Bouwmans, C., Van Den Bosch, L., Cost-effectiveness and Cost-utility of Shortterm Inpatient Dialectical Behavior Therapy for Chronically Parasuicidal BPD (Young) Adults, Journal of Mental Health Policy and Economics, 18, S19-S20, 2015	Conference abstract
van Spijker, B. A., Majo, M. C., Smit, F., van Straten, A., Kerkhof, A. J., Reducing suicidal ideation: cost-effectiveness analysis of a randomized controlled trial of unguided web-based self-help, Journal of medical Internet research, 14, e141, 2012	Not self-harm

Appendix K Research recommendations – full details

Research recommendations for review question: What is the effectiveness of harm minimisation strategies for people who have self-harmed?

Research question

What is the experience, feasibility, acceptability and effectiveness of harm minimisation strategies for people who self-harm?

Why this is important

Harm minimisation is an approach to self-harm that accepts the person's continued urge to self-harm while aiming to keep long-term damage and frequency of injury to a minimum. It can include suggestions to avoid, delay or reduce self-harm. In existing practice, however, self-harm prevention is usually seen as the highest priority when providing care for people who have self-harmed. Research evaluating the feasibility, acceptability, and effectiveness of harm minimisation strategies for people who have self-harmed could tell us whether the benefits of harm minimisation strategies outweigh their potential risks.

Table 5: Research recommendation rationale

Research question	What is the experience, feasibility, acceptability and effectiveness of harm minimisation strategies for people who self-harm?
Why is this needed	
Importance to 'patients' or the population	If a person is engaged in ongoing care and treatment but is not yet able to resist the urge to self-harm, harm minimisation strategies (such as substitution, simulation, deferral, avoidance or damage limitation of self-harm) may help to reduce the severity and/or recurrence of injury.
Relevance to NICE guidance	The absence of evidence regarding this topic currently restricts NICE guidance from making recommendations about specific harm minimisation strategies. The outcome of this research would allow such recommendations to be developed and become part of NICE guidance.
Relevance to the NHS	The findings from this research should contribute to better outcomes for those who self-harm.
National priorities	None identified
Current evidence base	Evidence is lacking on harm minimisation strategies.
Equality	It is unclear whether harm minimisation is equally feasible, acceptable, and effective across different groups of people, or if their experiences of it are the same. Some harm minimisation strategies are not appropriate for certain forms of self-harm.
Feasibility	Research in this area requires a degree of acceptance of continued self-harm, which may raise ethical problems for any research study. It may be logistically difficult to conduct a randomised controlled trial (RCT) on harm minimisation because randomising people to harm minimisation versus treatment as usual in a trial of this nature would require informed consent The committee agreed, however, that research on harm minimisation strategies could be feasible in people working towards stopping self-harm but who not yet managed to do so. Such research would need to

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	be done in the context of a therapeutic partnership where treatment is ongoing. A pilot feasibility study is also likely to be needed.
	Alternatively, to address the effectiveness aspect of the question, an observational study using existing health records could be done to compare the outcomes of those who do or do not receive harm minimisation strategies.
Other comments	None

Table 6: Research recommendation modified PICO table

Criterion	Explanation
Population	• People who self-harm
Intervention	Harm minimisation strategies, for example: • distraction techniques • coping strategies • approaches to self-care • wound hygiene and aftercare • providing information on the potential complications of self-harm • addressing the impact of alcohol and recreational drugs on the urge to self-harm.
Comparator	Treatment as usual

Outcomes	• Feasibility of the intervention
	• Acceptability of the intervention
	• Service user satisfaction
	• Severity of self-harm for example:
	   o Serious injury
	   o Infection
	   o Permanent scarring
	• Quality of life
	• Frequency of self harm
	• Repetition of self-harm
	• Time to first repeat of self-harm
	• Distress
	• Suicide
	• Self-efficacy/autonomy
	• Hopelessness

Study design	• RCT • Observational study using health records • Mixed methods study
Timeframe	2-5 years
Additional information	